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# THE NEW EDUCATION

AND

# THE NEW CIVILIZATION:

# THEIR UNITY

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OHIO STATE UNIVERSITY

BY

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# THE NEW EDUCATION AND THE NEW CIVILIZATION; THEIR UNITY.

One of our always forcible and suggestive writers on economics quotes the revolutionary patriot, Pelatiah Webster, as saying a hundred years ago:

"I conceive very clearly that the riches of the Nation do not consist in the abundance of money, but in the numbers of its people, in supplies and resources and the necessaries and conveniences of life, in good laws, good public officers, in virtuous citizens, in strength and concord, and in wisdom, justice, wise councils and manly force."

A new education and a new civilization based upon it as its firmest foundation; perhaps more correctly speaking, an education and a civilization one and inseparable, interwoven as warp and woof, united as the roots support and form union with the tree and its branches and their fruit, constitute the most impressive feature of modern life, and give most reason for thought and speculation to the modern philosophic historian and the student of economics. It is this modern phase of a steadily advancing progress that presents to us who are here gathered on a supremely important occasion most interesting material for study and most important problems. The promotion of the best purposes and highest welfare of the Nation in the directions indicated by Webster presupposes the solution of such questions as these: What is the purpose of education? How is it related to these highest interests of the people? How can we, who are more or less responsible for the proper education of the "industrial classes" especially, promote that education which will best meet the needs and the

demands of the Nation, and of its citizens individually? How does this duty of promoting the best education for modern times and modern life fit in with our duties as citizens and members of a fraternity in which the good of all is best consulted by aiding the individual in his endeavor to gain that life, that liberty, that freedom in the pursuit of true happiness, which is the fundamental thought of the constitution of our republic.

The discussion of the basis of the new education, and of the source and the foundation of the newer life of the people, thus involves the consideration of the question: How may we, as citizens in this great fraternity of citizens, best promote the welfare of our city, our country, our fellow citizens, and aid in securing, for all, those privileges for which Webster and his brethren were ready to write a new history in their own blood? As we must define education as being the preparation of the individual for the best use of his life and for highest service to his fellows, a high standpoint and a broad view must be gained preliminarily to such discussion.

Every person born into this world has a complete and indisputable right to demand that every right path in life shall be open to him; that liberty shall be accorded to him to perform every and any act adjudged by the common moral sense of mankind to be right. The individual must be the judge of the direction which best suits him in his search for happiness, and the State and his neighbors alike must give him way, just so long as he infringes none of the equal rights of others. The struggle with those mighty forces of nature that confront us all and which nations, as well as individuals, must battle against, that great and inevitable contest that tries us all and sifts us into our several fated paths and levels in life, is quite severe enough, at best, without artificial and unfair introduction of obstacles by one's fellows.

Privileges are always complemented by duties. There are, as I conceive, four great classes of duties that must be assumed by some or by all of the people, individually or col-

lectively, whether with or without common consent, to insure permanence of the community, and the possibility of training its youth for their work in life:

1. Life and property are to be protected at all hazards, at all times.

This supreme purpose of the law being unattained, no movement of the people, no plan of the citizen, in political, social, or domestic life can be insured success.

2. The people must be provided means for supporting life and acquiring all that life implies, of gaining all that life can be made to yield to them of good. This means that all the essential industries must be organized and promoted to highest efficiency, so as to yield, through the application of the best powers of the Nation and its maximum energy, the greatest returns.

3. The moral status of the individual and that of the Nation must be improved and held at a high level; not simply because dictated by a pure morality, but also, and hardly less essentially, because it is only when a people consists of individuals possessing a keen moral sense and highest integrity that the highest life of citizen or of Nation can be attained. Business cannot be carried on where honor is not ever present, or is not recognized as the genius always essential to full success. Life can never be worth living where the Golden Rule is forgotten. Suffering can never be prevented or relieved where self-interest rules.

4. Wisdom, thought, intelligence must be fostered and promoted by all practicable means. Lack of understanding quite as often as selfishness, folly more frequently than real wickedness, lies at the bottom of crime and of error, both of individuals and of nations. The want of an education, and of an experience rendered fruitful by wisdom and thoughtfulness, oftener causes the failures in business, and the fading out of great industries, than lack of ambition or of energy. Only high intelligence can reveal to us all that the world offers of highest good and of truest pleasure.

The opportunities of the citizen thus constitute the Nation's need, and their care the duties of the State. The rights, the privileges, the possibilities of the people, as a whole, are the study of every real statesman desirous of promoting the welfare of his country, the highest purpose of statecraft. Every honest citizen seeks the best interests of the community of which he is but one unit. Every educator looks to the promotion of the growth of that intelligence which is the essential basis of all advancement in manners, morals or material gain. From our standpoint, what seem to be the requirements, that a nation shall enjoy peace, safety, all reasonable comforts and privileges coming with civilization, and all those higher pleasures to which every human being has a right to aspire? I think it easy to identify and to enumerate the principal among them.

The Nation needs, first of all, an honest, earnest, intelligent,— for its purposes — well educated, well trained and righteous people, a people skilled in highest degree in all the arts, capable of providing for themselves every essential of an enlightened civilization, able to thoroughly protect themselves against every injurious condition of life, or any malevolent attack of enemies, domestic or foreign, and wise enough to govern themselves without self-irritation, and to provide in all possible ways for their own steady advancement. The material needs of the Nation include fruitful soils, favorable climate, with variety enough of both to permit the cultivation of all needed fruits and grains, and also all materials required in the arts and manufactures, the metals, and all materials of construction. It needs space for growth and time for self-improvement of its workers; and this means varied industries, including all the agricultures, all the arts of common life, and, no less, every industry that can be made to take root in the presence of wealth and flourish under the stimulus of the demands of the highest intelligence and of the most perfect culture of modern life. For highest efficiency, these industries must be distributed in such manner that each shall find demand and

afford supply close at hand; and the education and training, technical or other, which must underlie the highest arts and most skilled of the industries, must be provided at every large center of population.

Manufactures should arise and grow and flourish healthfully in the midst of agricultural sections of the country, and every cultivator of the soil should be able to find a market for his product close at hand, in the crowded haunts of trade. All the skilled industries should be within reach of mutual aid and support; the fine arts and the distinctively so-called useful arts should be as closely related in their geographical distribution as in their economics. Indeed, all the arts are useful, whether supplying clothing to the naked, or pleasures of the eye to the lover of the beautiful; whether giving food to a Nation or teaching its children a love of the good and the true; whether making a home for the family or educating its members in all that constitutes wisdom and learning. If there be any difference in rank, these last are the best, the highest, the most to be sought after. But those other arts, nevertheless, are the foundation upon which, only, we can build these. The essentially, practically, useful must always supply the substructure; and the more solidly built must be that foundation, the higher we would build our aesthetic superstructure, and the loftier the life we would live. The builders of houses and the builders of brain belong to one guild; the makers of homes and the teachers who make homes desirable are partners in business. The man who swings the hammer; the woman who hears the music of his ringing steel from beside the vibrating beam of her loom in the factory; the child gathering up the emptied bobbins on the mill floor; the mother at home singing to the rhythm of the cradle; the miner, risking life and limb amidst explosions of dynamite and the rush of irrupting waters; the brave fellow at the throttle on the engine rushing, by day or by night, with the speed of the winds, across the continent, life in hand at every moment; the soldier on duty on the frontier or amidst savages, defending his country; the states-

man making righteous laws; the teacher giving intellectual life to a people; all alike, farmer, mechanic, scholar or soldier, are working to one end: the onward and upward march of humanity. Give equal honor to all who do their best as best they can. The differences among them are largely God-given; His, after all, the credit for all.

The diversification of the industries and the specialization of knowledge, and of talent as well, various talents applied to as various arts, are essentials of progress. Every State should promote just as many kinds of industrial activity as can be made to flourish within its borders; every city should attract all the skilled industries; fine arts should be encouraged at every great center of trade or manufactures. Where the industries are most varied and where highest skill is found applied to highest art, there exists all the safety possible against the ups and downs of trade. It is the crude and unskilled industries that suffer with the ebb and flow of business. The producers of articles of pure art and of absolute luxury are more independent of "crises" than are the laborers unskilled in trades. The same principle is illustrated by our advancement in education. As we develop higher education, we also find ways of making wider and more completely specialized application of the elements of knowledge to the purposes of daily life and of bread-getting; and the growth of educational methods is as well illustrated by the foundation of trade schools, and, as at the capital of Ohio, of Normal schools for manual training of teachers, as by the differentiation of university instruction. The mechanic and the agriculturist, no less than the philosopher and the historian, make applied sciences and special investigation the foundation of their highest accomplishments

Our task is thus to diversify the industries of production, of aesthetics, and of instruction in all knowledge, whether of the past, of the present, or of that future which we are all striving, each in his own way, to make better. Thus, we seek to encourage every art, crude or fine, to bring together in one

neighborhood all intelligent and skillful workers in all the known arts and trades; to find ways of instructing the youth in both manual and mental culture, making both school and school-shop useful in adding to the number of mind-directed hands and intelligently working brains. We prefer rather to send the tax-gatherer to collect for the schools and colleges than for the prisons and the poorhouses. One of the most important and interesting movements of modern life is this substitution of the former for the latter classes of public institutions, through the cultivation and application of intellect in all the industries which constitute the modern life of the nations. This movement has been one effected mainly through the action of the State; and thus we come, by a very natural process, in the course of this somewhat didactic discussion, to the consideration of the purpose of government and the duties of the State.

The *purpose* of every good government is to promote the welfare of the people, morally, intellectually, physically. The duty of the State is to do what, in the promotion of that welfare, the individual cannot himself accomplish alone. The first duty of a government is to *govern*. It is to make secure life and property of every honest citizen; to protect him in his endeavor to live in peace, to work where and how he may choose or may esteem most conducive to his best interests; to gain knowledge either for its own sake or for useful application in his vocation; to enjoy the wholesome pleasures of life; to accumulate the fruits of honest industry to any extent; to acquire independence; to educate his children and to fit them, if they have the qualifications, for a larger and better life than his own. The State must insure the safety, the permanence, the diversification of industries; the encouragement and preservation of good morals; the promotion of education and the dissemination of knowledge; not only as essential to the stability of the State by reason of the necessity of intelligence as a characteristic of the citizen, but also as no less essential to the equally important element of stability as found in the

symmetrical and complete development of every fundamental industry. The educational is as essential as the industrial or the criminal code to the highest interests of the people and the grandest development of the Nation; and technical education is as necessary a part of public instruction, in fact, more so, in the simple preservation of the life of individual and of Nation as well, than is the older primary school or the latest form of liberal learning. The privileges of "life, liberty, and the pursuit of happiness" presume also assurance of opportunities to gain the prerequisites. A Nation accomplishes its purpose when, and only when, it insures peace, safety to life and property, and promotion of good morals through its criminal code; security of the material interests of the people by promoting the permanence, growth, and diversification of their industries, through the operation of an equally carefully and wisely devised industrial code; and when it secures for every citizen the privilege of gaining that education which is essential to his future prosperity as admitting him to the great industries and fitting him to intelligently and healthfully enjoy the full measure of compensation due him for skill and intelligence applied to useful purposes, in which all are interested.

The "New Education," which is yet the old, is simply that advance in the application of these never-denied and long-admitted principles of polity and of public policy, which has come to be seen to be demanded as a consequence of the progress of the age in invention, in the arts, and in our systems of industry. Reading, writing and arithmetic were once the all-sufficient education of every class engaged in industrial pursuits. To-day, a college education is insufficient to meet all the demands of some of the professions, and special schools are established in every country and in almost every city. A few years ago there were but three professions and three kinds of professional schools; to-day there are many, both of the professions and of the schools. The old education was mainly gymnastic; the modern is both gymnastic and immediately useful in the vocations of daily life. The old university was a

home for those who were called by Isaac Walton "cloisteral men of great learning"; the university of to-day is a workshop of all the arts and sciences as well as of the literatures. It is the product of a growth, not of a new planting, however, and we may reasonably hope for indefinite further improvement, and more and more splendid fruitage with the coming years.

The characteristic of the century has been the introduction of the so-called technical education: the instruction of youth in those elements of industrial education which will give a training in all that is needed to make the pupil capable of doing a man's or a woman's work in the world as a single unit in the complex system into which our lives are interwoven. The older system of education was one of primary school education for the people, high culture for the wealthy. A century ago it began to be seen that this curriculum must be broadened in the intermediate fields, and that it should include more of science, and more of culture as well, for the citizen of whatever grade, and that applied science and systematic instruction in the skilled industries of highest class must be introduced by every Nation that would make the most of modern developments in the arts. France and Germany were the first to take the practical initiative and to establish national schools of the arts and of the sciences, pure and applied, as well as of the literatures and the philosophies. Their statesmen were the first to see that Nations could now only be made great and secure by the incorporation, with the "book learning" of earlier times, of all new sciences, and instruction in all new arts demanding system and skill; and the results of their foresight and energetic action are hardly less striking than was, nearly twenty centuries earlier, the work of what John Draper calls "The Scientific School of Aristotle" at Alexandria, the inauguration of which was the first, and is still, the grandest event in the history of education, defined as to-day. These great statesmen saw what had been in the minds of other great men long before: that security in the mighty struggles among Nations, to result in the survival of the fittest, presumably,

could only be insured by the systematic instruction of the people in the work of the people, and to day, all Nations vie with each other in this competition for the foremost place in the industrial race in expanding educational systems to meet this demand.

But the new education is but the seen expression of the principles declared by the oldest educators of all races and of all civilizations. Aristotle inspired the teachers in the "Divine School of Alexandria" with the true scientific method which is at the foundation of all progress in knowledge of whatever kind; and the great philosophers of that time and their works have been, ever since, the acknowledged progenitors of the modern man of science. Archimedes and Euclid, Erastosthenes and Hipparchus, led in the propagation of the systematic development, perpetuation, and diffusion of true science and useful knowledge. Ptolemy Soter founded the prototype of the modern university in its most complete and symmetrical form. That was a greater work than was ever done by the mighty warrior after whom the university was named. Archimedes was an engineer; Hero was a mechanician; Euclid was the mathematician of whom it can be said, as of no other man, his works have never been overpassed; Hypatia expounded the doctrines of the philosophers; Ptolemy gave origin to astronomy and Philaraus was the presiding officer of a true university. Comenius, centuries later, but dreamed of the reconstruction of this scheme; and Milton, in his "Tract on Education," proposing to teach all the useful branches of knowledge, and Bacon, prescribing systems for the "Advancement of Learning," only presented anew the new education, which was still the old.

When the Marquis of Worcester urged the inauguration of technical schools and the formation by the government of trade schools, and when that wonderful mechanic, Vaucanson, gave his collections of models and machines and curious inventions as the beginning of the French "Conservatoire," the first of great modern schools of applied science, they were but doing

their part toward the restoration to the body, from which they had been lopped during the intermediate monastic period, the right arm and hand of a symmetrical system. Des Cartes and Herbert Spencer, in their studies for a better education for the modern time, and Scott Russell in his plea, so eloquently made to the Queen, for an education for the people of England, were merely resuscitating the long neglected but still living ideas of Aristotle and of Plato. And a modern university, like that of the ancient Greeks, includes and presumes instruction in all knowledge that makes the life of the time and underlies necessity, comfort, luxury, or labor, leisure, and self-improvement. The lapse of the middle ages and of our later times, until within the generation, almost, was simply failure to incorporate into the old scheme the newer knowledges and the later applications of knowledge of modern life. We, to-day, in our technical schools and in our departments of applied science, are simply remedying a neglect of our predecessors, making symmetrical and complete that structure which had been left without extension, and here and there in decay, for so many generations, while every phase of life was becoming richer and richer, and demanding more and more from the insufficient system.

We have, at last, once more come to see that Plato was wise in his day and generation, and for our own as well, and that the State should aid the people to secure a State University, in a similar but in a wider sense than that in which the regents of the University of the State of New York as yet define it, in something more than a stereotyped and crystalized form. Continuous change and steady progress must be an essential characteristic of any perfect form of education. That progress must have, as its first result, the constant and perfect adaptation of the whole university, from primary to final element, and from classic to technical and professional branches, to the requirements of every class and grade of citizen. The rich, no less than the poor, the scholar and the handi-craftsman alike, arts and sciences, languages and literatures, and all the

philosophies must not only find place, but must be kept in place, and the whole system always adapted to the steadily moving world.

Any real education, new or old, must be such as best prepares the man, and the woman no less, for successfully striving for all that either may fairly and rightfully hope to gain from the world and to find in life. It must cultivate the mental powers, give physical strength and endurance, supply wisdom and knowledge for application in all the fields of life work; offer special instruction and training where needed for the prosecution of those branches of industrial occupation which demand either higher education in the sciences or special knowledge of processes and methods of work such as cannot be subsequently obtained by the youth leaving his teachers behind him and going out into the world to take up his tasks; whether in the forum, on the bench, at the bar, in the pulpit, by the sick bed, or on the table of the operating surgeon; whether he goes into art or architecture, engineering or school teaching, building steam engines or cotton machinery, railways or canals, working at the loom or at the blacksmith's fire. The aim of the framers of the State University system, and its feeding and accessory departments, should be to prepare for a development of all the industries, the creation of intelligence, the encouragement of good morals, and a righteous distribution of moral, material, and intellectual good to all citizens, and as far as nature permits, in equal degree through at least equal opportunity. The greatest practicable diversification of industries, the widest distribution of knowledge, the most equitable distribution of wealth, moral as well as material, intellectual as well as ponderable, all and equally, should be the purpose of the builders of the Nation's noblest structure. It is this reconstruction of the ideals of Plato and of Milton and of all great minds since the time of Aristotle which we now see rapidly taking form around us. The real university is coming into being; the teaching of teachers, as well as the training of pupils for the real work of life, is one of the illustrations of the

extent and the completeness with which the old idea has been incorporated into the new and still more perfect form in this later time; and that greatness of soul and largeness of mind which permits a public man to turn quietly away from the chair of the highest office of a great republic to do his part in the work of completing preparations for the extension of such a system finds no more impressive illustration in the days of Alexander or Julius Cæsar, of the French revolution or of American independence. Framing the educational system of a people is a greater work than even the construction of its foreign policy or the organization of its penal code. These are the highest duties of the State, and it is in this work that patriotism, statecraft, wisdom, and honor find their noblest place. THE EDUCATION OF YOUTH IS THE BUILDING UP OF A NATION.

Where, we may next inquire, is the citizen to seek opportunity to do his part, and what are the privileges that he may claim? The upbuilding of a nation involves the assignment of duties to the citizen and the insuring of the greatest, the grandest opportunities to every individual composing the mighty whole. The duties are those of, individually and collectively, promoting the purpose of national advancement; of sending suitable representatives to make and to execute the laws; of helping friends and neighbors and compatriots to make successful careers, to lead happy and contented lives, and to promote the general welfare in all possible ways. The opportunities which the citizen may rightfully claim, under our government — under all governments, in fact — are those which enable him to make his own career. He has the right to choose his own vocation, to pursue any line of industrial, professional, or other occupation that he may find best suited to his talent, and, if he have it, his genius. He has a right to display all the intelligence, earnestness, strength, skill, integrity, and judgment that he may be possessed of; to strive for every good in life; to seize upon every opportunity to advance himself honorably and honestly; to buy and sell, to

trade and barter his property and his labor as may to him seem best; to gain the full reward of his highest efforts and best endeavors. He has a right to more than this: he may claim fairly and rightfully, he should be allowed to claim confidently, not only this privilege of doing his best and of gaining his full reward, but more than this and above all this, that his neighbor and his country shall give him active and effective and fruitful assistance. We all have the right to ask that we shall be actively aided in our efforts to make the most of life, to secure its highest rewards by honest effort. Every one of us has the right to expect that the State and our fellows shall give our children opportunity to become intelligent, well-informed, skilled workers in their various spheres and in all their progress through life; that the youth may enter upon his career prepared to compete on even terms with the whole world; that the family shall have a comfortable home if the father and mother choose to strive for it; that the aged shall be insured against retreat to the poorhouse when closing an industrious and honorable life. Opportunity to learn what is essential to our own success and to the prosperity of the Nation; opportunity to labor profitably in any field of agriculture, trade or manufacture; opportunity to buy and sell our labor and the products of our labor with best advantage; opportunity to seek and to gain comfort and pleasure in every department of life and in all its seven ages: these are what the citizen may rightfully claim.

Even the wealthy citizen has rights above and beyond those which he has exercised and has profited so splendidly by in his earlier years. He has the right to give his children that culture, as well as that special education which their position in life makes it incumbent upon them to completely avail themselves of, in order that they may most creditably and usefully fill that position; that they may make their own lives fuller and richer, that they may do most to encourage and aid the less fortunate. He has the right to reach out from his firm ground of vintage and rescue those who are still at the

mercy of the winds and waves of fortune and perhaps sinking under their burdens. He may fairly claim the privilege of doing all that good work that he may aspire to perform and to the assurance that his wishes shall be respected if he dies before carrying them into effect. He may ask to be assisted in the performance of that duty which comes with wealth, of helping the poor, of promoting the great philanthropies of the world, of building for himself a monument in college, hospital, or school, which shall make his name honored of all men for all time. That city, that State, and that Nation which thus gives to its poorest citizen the opportunity to rise and to do his best, to its richest citizen the opportunity to make the best use of his wealth in aiding his fellows, will advance most rapidly in all that the patriot most desires for his country. Life and property will be there most secure; wealth will be best distributed; comfort and happiness of high and low will be best insured.

Education, among all the possible means of advancing this great work, is the first and most essential. Education is to life what apprenticeship is to the trade: it prepares the individual to do his part as a unit in the great system of social economy. If suitably provided, it is the complete and ample introduction to all that life can offer of labor, attainment, enjoyment, in whatever field the individual chooses. Few men learn more than one trade; few men can accept all educations; few can hope to gain wealth, leisure, or highest culture; but all may claim the privilege of entering into the path that leads upward, each in his own place. Modern life, what we call civilization in its newer phases, is simply the outcome of exertion directed by such education as the people have. The new education is but the newest phase of the oldest and best recognized system. The philosophy of Socrates and the dream of Bellamy — if it should prove representative of anything in a future still beyond view — are but separated points in a continuous line. The civilizations of two thousand years ago and those of two thousand years hence are but the product of the

educations of their times. The peoples will be what they are taught and trained to be, whether in the infancy or in the old age of the world. Emerson is grander than Plato in so far as education and knowledge, continued thought and enlarged experiences make him greater. General Grant could handle armies and plan a campaign better than Alexander, or than Cæsar, simply because he profited by the wisdom and experiences of those great captains and of all who had planned and fought since their day. The greatest Greek and Roman rulers and law-givers made modern law possible and recent statesmen wise, and Athens remains a teacher of youth in every department, and in every college of our time.

Plato and every great philosopher since his day recognizes the education of the people as the chief duty of the State; Aristotle set the example of cultivating every useful branch, and the Alexandrian school set an example to the modern university. All great thinkers have urged that the technical side of life be most carefully and fully represented in the educational system; all great Nations have found the prescription one leading to the advancement of every element of prosperity. A great university is at once the type, the exponent, the promoter, and the basis of all that is good and great in modern civilization; modern life is but the product of an evolution originating with life itself; Homer, Milton and Shakspeare; Plato and Emerson; Hero, DaVinci, Watt and Corliss; Solon, John Bright and Henry Ward Beecher; Washington and Abraham Lincoln: these are all elementary parts of one eternal whole; their relative chronological position gauges the growth of the race. Homer's "Iliad"; Plato's "Republic"; Quintilian's "Treatise"; Milton's "Tract"; the works of Richter, of Rousseau, of Goethe, and of Herbert Spencer: all such are mile-stones of progress from the old education, which was the old civilization, to the new education, which is the new civilization, from all the old worlds to all the new. And, as time passes us on into the newer old, education will progress and change with the times that are coming as it has progressed and changed with

the times that are gone; but its change will be changeless in that it will always represent the latest, the highest, and the best possible basis and buttress of the State. Learning, hand in hand with wisdom; the power to do and the ability to create; scientific attainments and talent for their fruitful employment; appreciation of art and literary culture; the university, in fact: lie, one and all, within every real education, and all are needed that learning may be "Pilot to the World."